HELP1

A UTILITY ROM FOR THE BBC MICROCOMPUTER FROM BEEBUGSOFT

Written by
B. Hill and C. Fitch

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P.O. Box 50, St. Albans, Herts.

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1. INTRODUCTION

One of the most frustrating and time consuming tasks for the programmer is searching through user guides and reference manuals for a particular piece of information. This is especially annoying when you know which command you need, but just can't remember the syntax or what the parameters are.

HELP1 will reduce program development time, providing instant answers on a wide range of subjects, actually while you sit at the keyboard.

Some of the topics included within HELP1 are:

1) BASIC
2) COLOUR
3) FX CALLS
4) PLOT
5) SOUND
6) VDU CALLS
7) TELETEXT
8) OPERATORS
9) MEMORY
10) SCREEN
11) PAGE/HIMEM etc

2. GETTING STARTED

2.1 OVERVIEW

Ideally a HELP rom should need no manual whatsoever. After all, the idea of such a piece of software is to provide useful on-screen information on any topic that you care to interrogate it about.

To a large extent this turns out to be the case, but a few words describing the way in which the information is organised within HELP1 may help you to find your answers a little quicker. A certain amount of experimentation will also be necessary to familiarise yourself with the topics covered by HELP1 and the best ways to access the information.

Although an efficient compression technique has been used, there is inevitably a limit to the amount of text that can be squashed into an 8K rom. We have attempted to provide a selection of information that will be of use to both the novice and experienced Basic programmer alike, covering some of the most commonly used, but easily forgotten, subjects.

In spite of the extreme limits imposed by the memory capacity of the rom, you should find help on most problems you are likely to encounter.

There are inevitably one or two exceptions. Perhaps the most major gap is in the ENVELOPE command. This is not covered because of the very large amount of space it would take to provide useful information on this topic. It is the one command in BASIC that really does need a manual.

2.2 FITTING THE HELP1 ROM

HELP1 is supplied on an 8K eprom which should be fitted into one of the 'paged rom' sockets in the computer. See the enclosed instruction sheet for full details on how to do this.

2.3 VERSION NUMBER

When in BASIC, typing *HELP followed by pressing Return will give the normal help message, which should now include HELP1 with its version number. Please quote this version number in any correspondence.

2.4 THE DISPLAY

HELP1 will display its information on the screen in whatever mode the computer is in at the time when the command is issued. Mode 7 presents the clearest display of information, but HELP1 will not force a mode change. You are advised against making displays in 20 column modes such as mode 2, but the choice is yours.

When a display in mode 7 is made, HELP1 adds colour codes to the screen output. Topics will be displayed in yellow and all other text in cyan.

The information displayed by HELP1 will often exceed a single screenful. If this occurs, paged mode will automatically be selected and the display will halt after each screenful. Pressing Shift will scroll the display. Pressing Escape at any time within HELP1 will terminate the display and return control to Basic (or the currently selected language).

If you require a hard copy of the information being displayed by HELP1, your printer may be activated and de-activated with CTRL-B and CTRL-C or with VDU2 and VDU3 in the usual way.

3. INTERROGATING THE HELP ROM

The syntax to interrogate HELP1 on any topic is:

*H <topic> <Return>

A full explanation of this is given in section 3.1. However the actual call to HELP1 may be issued in several different ways. Any of the following commands will have the same effect:

*HLP *HL *H (Note: No full stops are required)

To prevent possible command clashes with other roms in your machine, HELP1 commands may optionally be prefixed with the letter B. Therefore the following commands will also activate HELP1:

*BHLP *BHL *BH

These commands may be either in upper or lower case. (Remember that *H. or *HELP calls up the BBC's own limited help facility).

In response to a command to HELP1 with no parameters, (eg just *H) a list of the topics upon which information is available will be given together with a summary of the command syntax.

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Help can be obtained on a wide range
of subjects including the following:

ASCII  BASIC  COLOUR    FX      GCOL
HEX    HIMEM  LOMEM     MEMORY  PAGE
PLOT   SCREEN SOUND     TOP     TRIG
VDU    TELETEXT

Syntax

1) Topic request
   *H topic  eg *H FX or *H FX3

2) Search request
   *H @word  eg *H @PRINT or *H @PRI.
   searches all occurrences of 'word'
```

NOTE: All entries to HELP1 are not case specific. This means that *H BASIC is equivalent in every way to *h basic and will have the same effect.

3.1 INTERROGATION BY TOPIC

Information within HELP1 is divided into a number of topics, these may be displayed on the screen with the *H command with no other parameters. To display the information on any of these topics, use the following command:

*H <topic> <Return>

<Return> means press the Return key.

For example, to find out all about the VDU commands, type:

*H VDU <Return>

This will display the information on all VDU commands. Note that to prevent the information disappearing from the screen before you have read it, paged mode will be engaged. This means that when the display halts, pressing Shift will display the next screenful of information. When all information has been listed, the normal Basic prompt '>' will again be displayed.

If you now enter the command *H BASIC all the information relating to Basic keywords will be displayed. Note that each keyword is listed separately and is displayed in yellow (if the computer is in mode 7).

This display is very long and a little confusing, especially if you are only looking for information on a certain Basic keyword. For this reason, HELP1 will also provide a more specific display, using the keyword as a "sub-topic".

3.2 INTERROGATION BY SUB-TOPIC

Listing all the information available on a whole topic, such as Basic, can be a slow way to locate the answer to a specific question. Interrogation by sub-topic provides a shorter and more concise answer. The syntax is:

*H topic <sub-topic> <Return>

So to find information on the Basic keyword DATA we could enter:

*H DATA

This gives a much more specific answer than *H BASIC and saves the time taken wading through screens of information. However, there are obviously situations when a greater amount of information, such as that revealed by *H BASIC, would be of more use.

3.2.1 ASSOCIATED INFORMATION

Notice that in both the examples given in section 3.2, not only is the DATA command listed, but other associated commands are also shown. In this case READ and RESTORE. This is a feature of HELP1 designed to assist you to locate the exact information that you are looking for.

Where applicable, the information in HELP1 has been grouped into small sections. When a request for information on any sub-topic is made, any of the other sub-topics in that group will also be displayed. Not all sub-topics are in groups, but to see an example of how this feature works try

*H PRINT

This will give the same information as any of the following commands:

*H @% *H TAB *H SPC *H POS
*H VPOS *H COUNT *H WIDTH

3.3 STRING SEARCH

The features of HELP1 that have been described so far, have mainly been of use to the programmer who knows which Basic command or keyword he needs to use, but can't remember the syntax. Another method of displaying the information from within HELP1 is also available, for occasions when you do not know which command to use at all.

3.3.1 A SPECIFIC SEARCH

HELP1 has a word search facility which allows you to display ALL occurrences of any word or expression used anywhere in the text. The syntax for this facility is:

*H @ <string> <Return>

It is the @ symbol that denotes a search is to be made, rather than a specific topic or sub-topic display.

For example, to find out all information relating to printers, you could use:

*H @ PRINTER

Similarly, to find out all information relating to the cursor you could use:

*H @ CURSOR

The search routine will look through the entire text and will display THE WHOLE SUB-TOPIC, in which any reference is made to the word 'printer'.

NOTE: Only references to the exact word "PRINTER" will be found. This means that references to PRINT or PRINTERS, for example, will not be found.

3.3.2 A GENERAL SEARCH

It is possible to make an even wider search for information in HELP1. The syntax for this is as follows:

*H @<string>.<Return>

The important difference between this routine and the other search routine described in section 3.3.1, is the full stop after 'string'. This designates that all occurrences of the string, even occurrences where the string is followed by other letters, are to be reported. For example

*H @ PRINT.

will report all occurrences of not only the word PRINT, but also PRINTER, PRINTED etc.

NOTE: This search will only find occurrences of the search string, where it forms the first part of a word in HELP1. For example:

*H @ TEXT.

will NOT find occurrences of the word TELETEXT.

As with all searches for information in HELP1, the search will not be case specific, ie *H @ PRINT. is equivalent to *H @ print.

Inevitably the speed information access using these search routines will be slightly slower than when displaying a specific topic. However, the search routine is very fast, and is capable of reading through the whole rom in about 2 seconds.

4. EXAMPLES

The following examples will indicate the type of information that HELP1 can provide:

EXAMPLE 1: To find information on the PRINT statement.
*H PRINT

EXAMPLE 2: To find information about a particular FX call.
*H FX15

EXAMPLE 3: To find the command to change the colour flash rate.
*H @ FLASH

EXAMPLE 4: To find all string related commands.
*H @ STRING
or *H @ $

EXAMPLE 5: To find out how to prevent the cursor from being displayed.
*H CURSOR

EXAMPLE 6: To find out what HIMEM is in mode 4:
*H SCREEN
or *H @ MODE

EXAMPLE 7: To find out which command to use to alter the keyboard auto-repeat rate:
*H @ KEYBOARD

5. COMMAND SUMMARY

1. HELP1 — Front page

   This gives brief notes on HELP1, and major Topic headings

   Type *H <return> (ie. type *H and press Return) Note — no full stop after 'H'

2. TOPIC or sub-topic search

   *H <topic> <return>
   or
   *H <sub topic> <return>

   eg. *H VDU <return>
   or *H VDU23 <return>

   Abbreviations may be used using a full stop — eg. *H PRI. will have the same effect as *H PRINT etc.

3. Word search

   *H @ <word> <return>

   Word is any string of characters. Every exact occurrence will cause the relevant sub topic group to be displayed.

4. General word search

   *H @ <word>.<return>

   This searches for all occurrences of words beginning with the specified string
   Thus *H @ PRINT. <return> will find all references to PRINT, PRINTER PRINTED etc.

Notes:

1. To avoid confusion with other ROMS, the letter H may be optionally prefixed with a "B". Thus *BH FX6 has the same effect as *H FX6 etc.

2. No calls to HELP1 are case specific. Thus *h PrInT has the same effect as *H PRINT

3. If more than a screenful of information is called up, page mode will be engaged. Press Shift for a new screenful, or Escape to exit.

4. Use CTRL-B or VDU 2 to turn printer on.

   Use CTRL-C or VDU 3 to turn printer off.